

Title (en)

HUMANIZED ANTIBODIES THAT SEQUESTER AMYLOID BETA PEPTIDE

Title (de)

HUMANISIERTE, AMYLOID-BETA-PEPTID-SEQUESTRIERENDE ANTIKÖRPER

Title (fr)

ANTICORPS HUMANISÉS DE SÉQUESTRATION D'UNE PROTÉINE BÊTA-AMYLOÏDE

Publication

EP 3150633 A1 20170405 (EN)

Application

EP 16196667 A 20010226

Priority

- US 18460100 P 20000224
- US 25446500 P 20001208
- US 25449800 P 20001208
- EP 04011466 A 20010226
- EP 01913081 A 20010226

Abstract (en)

A method to treat conditions characterized by formation of amyloid plaques both prophylactically and therapeutically is described. The method employs humanized antibodies which sequester soluble A β peptide from human biological fluids or which preferably specifically bind an epitope contained within position 13-28 of the amyloid beta peptide A β .

IPC 8 full level

C07K 16/18 (2006.01); **C12N 15/09** (2006.01); **A61K 39/00** (2006.01); **A61K 39/395** (2006.01); **A61P 25/28** (2006.01); **C12N 5/10** (2006.01); **C12N 15/13** (2006.01); **C12R 1/91** (2006.01)

IPC 8 main group level

A61K 39/00 (2006.01); **C12N 5/00** (2006.01)

IPC 8 main group level

A61K (2006.01); **A61P** (2006.01); **C07K** (2006.01); **C12N** (2006.01)

CPC (source: EP KR NO US)

A61K 39/39533 (2013.01 - NO); **A61P 25/00** (2018.01 - EP); **A61P 25/28** (2018.01 - EP); **C07K 16/18** (2013.01 - EP KR US); **A61K 2039/505** (2013.01 - EP US); **C07K 2317/24** (2013.01 - EP US); **C07K 2317/34** (2013.01 - EP US); **C07K 2317/565** (2013.01 - EP US); **C07K 2317/567** (2013.01 - EP US); **C07K 2317/76** (2013.01 - EP US); **C07K 2317/92** (2013.01 - EP US)

Citation (applicant)

- US 0035681 W 20001229
- US 15313098 A 19980915
- WO 9927944 A1 19990610 - ATHENA NEUROSCIENCES INC [US], et al
- WO 9960024 A1 19991125 - UNIV TENNESSEE RES CORP [US]
- WO 0072880 A2 20001207 - NEURALAB LTD [US], et al
- WO 0072876 A2 20001207 - NEURALAB LTD [US], et al
- WO 0077178 A1 20001221 - BOSTON BIOMEDICAL RES INST [US]
- US 5766846 A 19980616 - SCHLOSSMACHER MICHAEL G [AT], et al
- US 5837672 A 19981117 - SCHENK DALE B [US], et al
- US 5593846 A 19970114 - SCHENK DALE B [US], et al
- MCLEAN, C. A., ANN. NEUROL., vol. 46, 1999, pages 860 - 866
- NASLUND, J., I AM. MED. ASSOC., vol. 283, 2000, pages 1571
- GHERSI-EGEA, J.-F. ET AL., J. NEUROCHEM., vol. 67, 1996, pages 880 - 883
- ZLOKOVIC, B. V., BIOCHEM. BIOPHYS. RES. COMM., vol. 67, 1993, pages 1034 - 1040
- SHIBATA M ET AL., J. CLIN. INVEST., vol. 106, 2000, pages 1489 - 1499
- KAWARABAYASHI T ET AL., J. NEUROSCI., vol. 21, 2001, pages 372 - 381
- NITSCH, R. M. ET AL., ANN. NEUROL., vol. 37, 1995, pages 512 - 518
- GOLDE, T.E. ET AL., BIOCHEM. BIOPHYS. ACTA., vol. 1502, 2000, pages 172 - 187
- ZLOKOVIC, B.V. ET AL., PROC. NATL ACAD. SCI. (USA), vol. 93, 1996, pages 4229 - 4234
- ZLOKOVIC, B. V. ET AL., BIOCHEM. BIOPHYS. RES. COMM., vol. 67, 1993, pages 1034 - 1040
- BARD, F. ET AL., NATURE MED., vol. 6, 2000, pages 916 - 919
- KABAT: "Sequences of Proteins of Immunological Interest", 1987, NATIONAL INSTITUTES OF HEALTH
- CHOTHIA ET AL., J. MOL. BIOL., vol. 196, 1987, pages 901 - 917
- CHOTHIA ET AL., NATURE, vol. 342, 1989, pages 878 - 883
- CO, PROC. NATL. ACAD. SCI. USA, vol. 88, 1991, pages 2869
- JOHNSON-WOOD, K. ET AL., PROC. NATL. ACAD. SCI. USA, vol. 94, 1997, pages 1550 - 1555
- BALES, K.R. ET AL., NATURE GENET., vol. 17, 1997, pages 263 - 264
- JOHNSON-WOOD, K. ET AL., PROC. NATL. ACAD. SCI. USA, vol. 94, 1997, pages 1550 - 1555
- JOHNSON-WOOD, K. ET AL., PROC. NATL. ACAD. SCI. USA, vol. 94, 1997, pages 1550 - 1555
- DEMATTOS, R.B. ET AL., J. BIOL. CHEM., vol. 273, 1998, pages 4206 - 4212
- SUN, Y. ET AL., J. NEUROSCI., vol. 18, 1998, pages 3261 - 3272
- HOLTZMAN, D.M. ET AL., ANN. NEUROL., vol. 97, 2000, pages 2892 - 2897
- BALES, K.R. ET AL., NATURE GENET., vol. 17, 1997, pages 263 - 264
- J.-C. DODART ET AL., BEHAVIORAL NEUROSCIENCE, vol. 113, no. 5, 1999, pages 982 - 990
- QUEEN ET AL., PROC. NATL. ACAD. SCI. USA, vol. 86, 1988, pages 10029 - 10033
- LEVITT, M., J. MOL. BIOL., vol. 168, 1983, pages 595 - 620
- HE, X. Y. ET AL., J. IMMUNOL., vol. 160, 1998, pages 029 - 1035
- CO, M. S. ET AL., J. IMMUNOL., vol. 148, 1992, pages 1149 - 1154
- KARLSSON R. ET AL., J. IMMUNOL. METHODS, vol. 145, 1991, pages 229 - 240

Citation (search report)

- [AD] WO 9927944 A1 19990610 - ATHENA NEUROSCIENCES INC [US], et al
- [ADP] WO 0072880 A2 20001207 - NEURALAB LTD [US], et al
- [A] SEUBERT ET AL: "ISOLATION AND QUANTIFICATION OF SOLUBLE ALZHEIMER'S BETA-PEPTIDE FROM BIOLOGICAL FLUIDS", NATURE, MACMILLAN JOURNALS LTD. LONDON, GB, vol. 359, no. 6393, 24 September 1992 (1992-09-24), pages 325 - 327, XP000616173, ISSN: 0028-0836
- [A] ST GEORGE-HYSLOP ET AL: "Antibody clears senile plaque", NATURE, vol. 400, July 1999 (1999-07-01), pages 116 - 117, XP002299786
- [A] SCHENK D ET AL: "Immunization with amyloid-beta attenuates Alzheimer-disease-like pathology in the PDAPP mouse [see comments]", NATURE, NATURE PUBLISHING GROUP, UNITED KINGDOM, vol. 400, no. 6740, 8 July 1999 (1999-07-08), pages 173 - 177, XP002154168, ISSN: 0028-0836, DOI: 10.1038/22124
- [A] WINTER ET AL: "HUMANIZED ANTIBODIES", IMMUNOLOGY TODAY, ELSEVIER PUBLICATIONS, CAMBRIDGE, GB, vol. 14, no. 6, 1996, pages 243 - 246, XP001005438, ISSN: 0167-4919
- [ADP] BARD ET AL: "Peripherally administered antibodies against amyloid beta-peptide enter the central nervous system and reduce pathology in a mouse model of Alzheimer disease", NATURE MEDICINE, NATURE PUBLISHING CO, US, vol. 6, no. 8, August 2000 (2000-08-01), pages 916 - 919, XP002154518, ISSN: 1078-8956
- [T] THE LANCET NEUROLOGY: "Solanezumab: too late in mild Alzheimer's disease?", LANCET NEUROLOGY, LANCET PUBLISHING GROUP, LONDON, GB, vol. 16, no. 2, 13 January 2017 (2017-01-13), pages 97, XP029883877, ISSN: 1474-4422, DOI: 10.1016/S1474-4422(16)30395-7
- [T] RACHELLE S. DOODY ET AL: "Phase 3 Trials of Solanezumab for Mild-to-Moderate Alzheimer's Disease", NEW ENGLAND JOURNAL OF MEDICINE, vol. 370, no. 4, 23 January 2014 (2014-01-23), pages 311 - 321, XP055183832, ISSN: 0028-4793, DOI: 10.1056/NEJMoa1312889

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

Designated extension state (EPC)

AL LT LV MK RO SI

DOCDB simple family (publication)

WO 0162801 A2 20010830; WO 0162801 A3 20020131; AT E279442 T1 20041015; AU 4178601 A 20010903; BR 0108676 A 20030107; BR PI0108676 B1 20150915; BR PI0108676 B8 20210525; CA 2400559 A1 20010830; CA 2400559 C 20120501; CN 101670105 A 20100317; CN 101670105 B 20140806; CN 104341500 A 20150211; CN 1426423 A 20030625; CN 1426423 B 20100512; CY 1118381 T1 20170628; CZ 20022851 A3 20030917; CZ 2008595 A3 20170503; CZ 304211 B6 20140108; CZ 306683 B6 20170503; DE 1257584 T1 20030528; DE 60106394 D1 20041118; DE 60106394 T2 20060309; DE 60106394 T3 20130725; DK 1257584 T3 20050117; DK 1257584 T4 20130325; DK 1481992 T3 20170130; DZ 3295 A1 20010830; EA 006606 B1 20060224; EA 200200897 A1 20030227; EP 1257584 A2 20021120; EP 1257584 B1 20041013; EP 1257584 B2 20130306; EP 1257584 B9 20041201; EP 1481992 A2 20041201; EP 1481992 A3 20041208; EP 1481992 B1 20161102; EP 3070100 A1 20160921; EP 3070100 B1 20210707; EP 3150633 A1 20170405; ES 2184660 T1 20030416; ES 2184660 T3 20050501; ES 2184660 T5 20130509; ES 2611427 T3 20170508; HK 1048640 A1 20030411; HK 1048640 B 20050401; HR P20020693 A2 20041231; HR P20020693 B1 20120131; HR P20080430 A2 20081130; HR P20080430 A9 20090228; HR P20080430 B1 20161216; HU 230768 B1 20180328; HU P0204074 A2 20030328; HU P0204074 A3 20040728; HU P0800571 A2 20030328; IL 151378 A0 20030410; IL 151378 A 20100429; IL 193631 A0 20090211; IL 193631 A 20101130; JP 2003523764 A 20030812; JP 2009046497 A 20090305; JP 4738696 B2 20110803; JP 4914412 B2 20120411; KR 100767146 B1 20071015; KR 20020089359 A 20021129; LT 1481992 T 20170210; MX PA02008145 A 20040405; NO 20023957 D0 20020820; NO 20023957 L 20021022; NO 20083805 L 20021022; NO 329840 B1 20110110; NO 337363 B1 20160329; NZ 520800 A 20040430; PL 210157 B1 20111230; PL 218883 B1 20150227; PL 356798 A1 20040712; PT 1257584 E 20050131; PT 1481992 T 20170102; SI 1257584 T1 20050430; SI 1257584 T2 20130731; SI 1481992 T1 20170131; SK 12212002 A3 20031007; SK 288711 B6 20191105; SK 288723 B6 20200107; TR 200202799 T3 20030321; UA 75881 C2 20060615; US 2004043418 A1 20040304; US 2006039906 A1 20060223; US 2009238821 A1 20090924; US 2011158986 A1 20110630; US 7195761 B2 20070327; US 7892545 B2 20110222; US 8591894 B2 20131126; ZA 200206712 B 20031121

DOCDB simple family (application)

US 0106191 W 20010226; AT 01913081 T 20010226; AU 4178601 A 20010226; BR 0108676 A 20010226; CA 2400559 A 20010226; CN 01808430 A 20010226; CN 200810214672 A 20010226; CN 201410322976 A 20010226; CY 161101301 T 20161215; CZ 20022851 A 20010226; CZ 2008595 A 20010226; DE 01913081 T 20010226; DE 60106394 T 20010226; DK 01913081 T 20010226; DK 04011466 T 20010226; DZ 013295 A 20010226; EA 200200897 A 20010226; EP 01913081 A 20010226; EP 04011466 A 20010226; EP 16161726 A 20010226; EP 16196667 A 20010226; ES 01913081 T 20010226; ES 04011466 T 20010226; HK 03100011 A 20030102; HR P20020693 A 20020822; HR P20080430 A 20080903; HU P0204074 A 20010226; HU P0800571 A 20010226; IL 15137801 A 20010226; IL 15137802 A 20020821; IL 19363108 A 20080821; JP 2001562582 A 20010226; JP 2008240971 A 20080919; KR 20027011027 A 20020823; LT 04011466 T 20010226; MX PA02008145 A 20010226; NO 20023957 A 20020820; NO 20083805 A 20080904; NZ 52080001 A 20010226; PL 35679801 A 20010226; PL 38612501 A 20010226; PT 01913081 T 20010226; PT 04011466 T 20010226; SI 200130240 T 20010226; SI 200131058 A 20010226; SK 12212002 A 20010226; SK 692008 A 20010226; TR 200202799 T 20010226; UA 2002086888 A 20010226; US 22462305 A 20050912; US 22643502 A 20020821; US 2864108 A 20080208; US 97628210 A 20101222; ZA 200206712 A 20020821